2024-02-01

Overview of the MS AAI Program: https://onlinedegrees.sandiego.edu/masters-applied-artificial-intelligence/classes/

Summer Courses:

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Units:Course Number:

3   AAI 510

https://onlinedegrees.sandiego.edu/education/

AAI 510 - Machine Learning: Fundamentals and Applications

Machine Learning (ML), as part of Artificial Intelligence, is an interdisciplinary field that combines techniques from learning algorithms and statistics to make predictions or decisions without human intervention. Machine learning applications include business intelligence, biomedical systems, security, and automation. This class will introduce students to the fundamental concepts and algorithms for machine learning. We will learn supervised learning and unsupervised learning techniques such as hidden Markov models, support vector machines, clustering, and dimensionality reduction using Python. Students will acquire skills and knowledge on incorporating ethical issues in machine learning. Students will learn concepts such as dehumanization effects and amplification of human biases that are transferred into training data affecting machine learning.

Units:Course Number:

3   AAI 511

AAI 511 - Neural Networks and Deep Learning

Neural networks have enjoyed several waves of popularity over the past half-century. The many applications of neural networks include apps that identify people in photos, automated vision systems for large-scale object recognition, smart home appliances that recognize continuous, natural speech, self-driving cars, and software that translates from any language to any other language. In this course, students will learn the fundamental principles and concepts of neural networks and stat̲ to deep learning using in-demand Python packages, such as TensorFlow and PyTorch. Students will learn to design neural network architectures and training methods using hands-on assignments and will perform comprehensive final projects in this course.